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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,357	01/23/2004	Tomohisa Konno	248100US0DIV	4862
22850	7590	05/23/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			ZALUKAEVA, TATYANA	
			ART UNIT	PAPER NUMBER
			1713	
DATE MAILED: 05/23/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Supplemental  
Notice of Allowability**

Application No.

10/762,357

Examiner

Tatyana Zalukaeva

Applicant(s)

KONNO ET AL.

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/01/2004.
2. ☒ The allowed claim(s) is/are 1-8, 19-27.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☒ Certified copies of the priority documents have been received in Application No. 09/842,162.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 01/23/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

Tatyana Zalukaeva  
Primary Examiner  
Art Unit: 1713

## EXAMINER'S COMMENT/REASONS FOR ALLOWANCE

### Examiner's Comment

1. Applicants' presented a statement that the present application and the Takashima patent (U.S. 6,458,883) were, at the time the invention of the present application was made, owned by JSR Corporation.

The above statement is sufficient to evidence common ownership of the present application and the Takashima reference cited as prior art by the Office. Applicants have thereby disqualified Takashima as prior art under 35 U.S.C. 103© (see M.P.E.P. 706.02(1)).

### *Allowable Claims*

2. Claims 1-8, 19-27 are allowed over the prior art of record.

### Reasons for Allowance

3. The following is an examiner's statement of reasons for allowance: The closest are Ito et al (U.S. 6,210,869) and Hashimoto et al (U.S. 6,316,172).

Instantly amended claim 1 calls for 40% as lower limit of diene monomer and 50% as upper limit of aromatic vinyl monomer.

Ito discloses a binder, which is a crosslinked rubber particle comprising the following comonomer units: **styrene/butadiene/hydroxyethylmethacrylate/divinylbenzene**

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67/30/2.5/0.5 (% by weight). Thus Ito does not meet the requirement of the instant amended claims in terms of diene and styrene content.

**Hashimoto** discloses ***Styrene/Butadiene/Hydroxyethylmethacrylate/***

***Divinylbenzene*** 67/30/2.5/0.5 (wt. %) (col.21, lines 39-46). This meets the limitations of claims 2 and 4 in terms of the amounts of styrene and diene, however, the instant claims 2 and 4 provide for the presence of amino containing monomer and epoxy containing monomer respectively. The disclosure of Hashimoto includes only hydroxyethylmethacrylate in combination with diene and styrene and divinylbenzene. No suggestion or motivation is provided to incorporate the amino containing or epoxy containing comonomer as a polymerized unit.

**Koshimura et al (U.S. 6,140,017)** provides for a particle of a copolymer (1) which is substantially similar to the copolymer of the instant claims (see abstract, col. 2, lines 15-51, col.4, lines 20-50, col.5, line 39). However, contrary to the particles of Koshimura, the particles of the instant claims are crosslinked by themselves, and thus have the toluene insoluble of 80% or more (see claim 1). The particles of Koshimura can only be cured in a combination with copolymer (2) due to the presence of specific functional groups in copolymer 2 that participate in crosslinking.

No other prior art that anticipates or suggests fairly the instant claims has been located as of the date of this office action. Therefore, claims 1-8, 19-27 are allowed over the prior art of record.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tatyana Zalukaeva whose telephone number is (571) 272-1115. The examiner can normally be reached on 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tatyana Zalukaeva  
Primary Examiner  
Art Unit 1713



January 31, 2005